STATE OF MARYLAND

DHMH

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June 05, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:21 Reporting for the week ending 05/30/09 (MMWR Week #21)

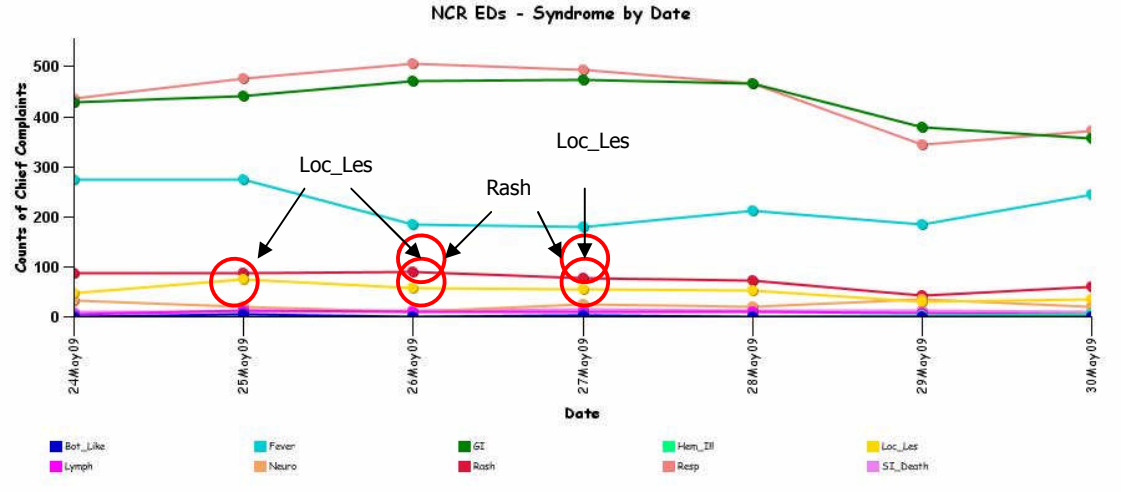
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

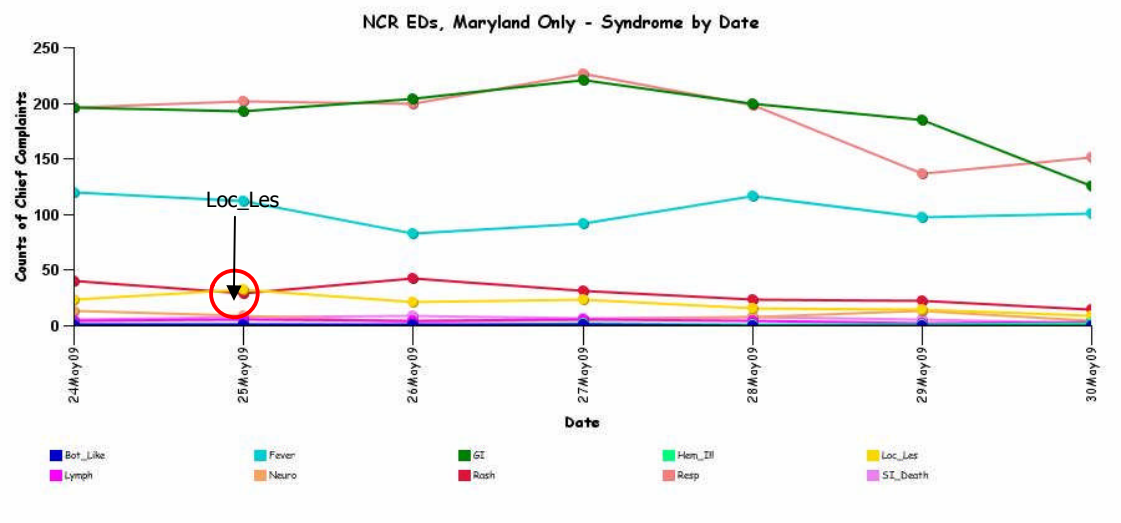
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

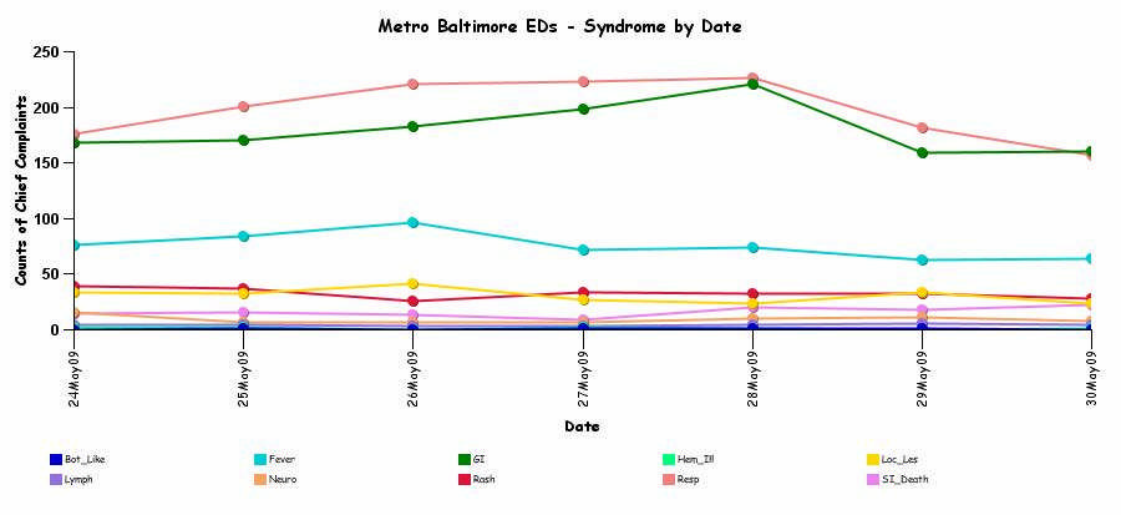
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.



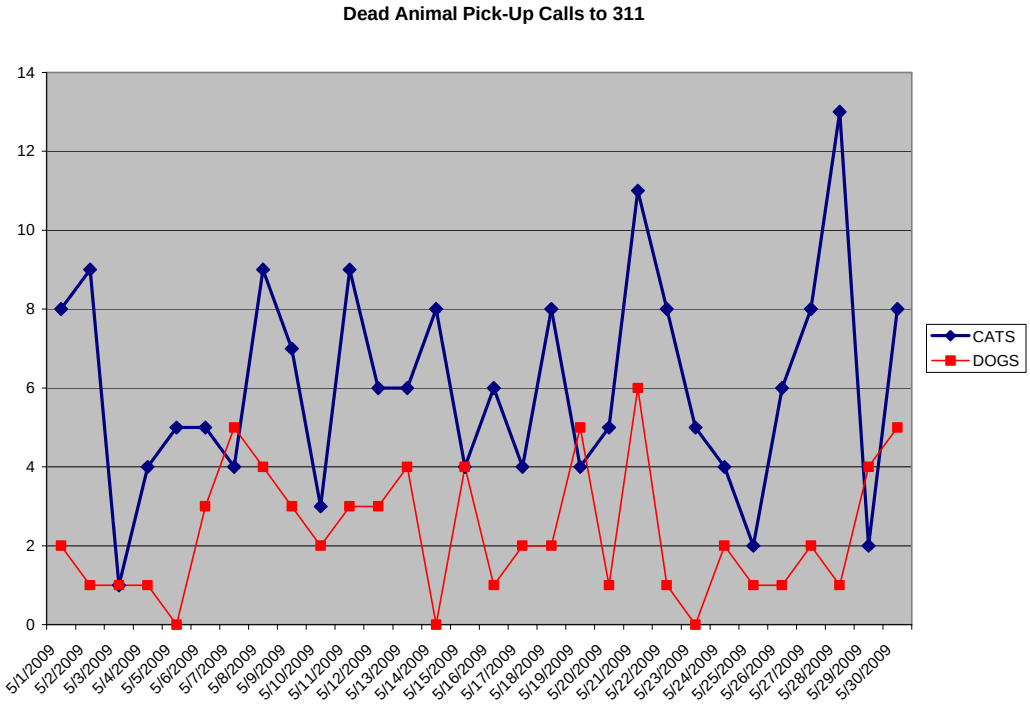
* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.



* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

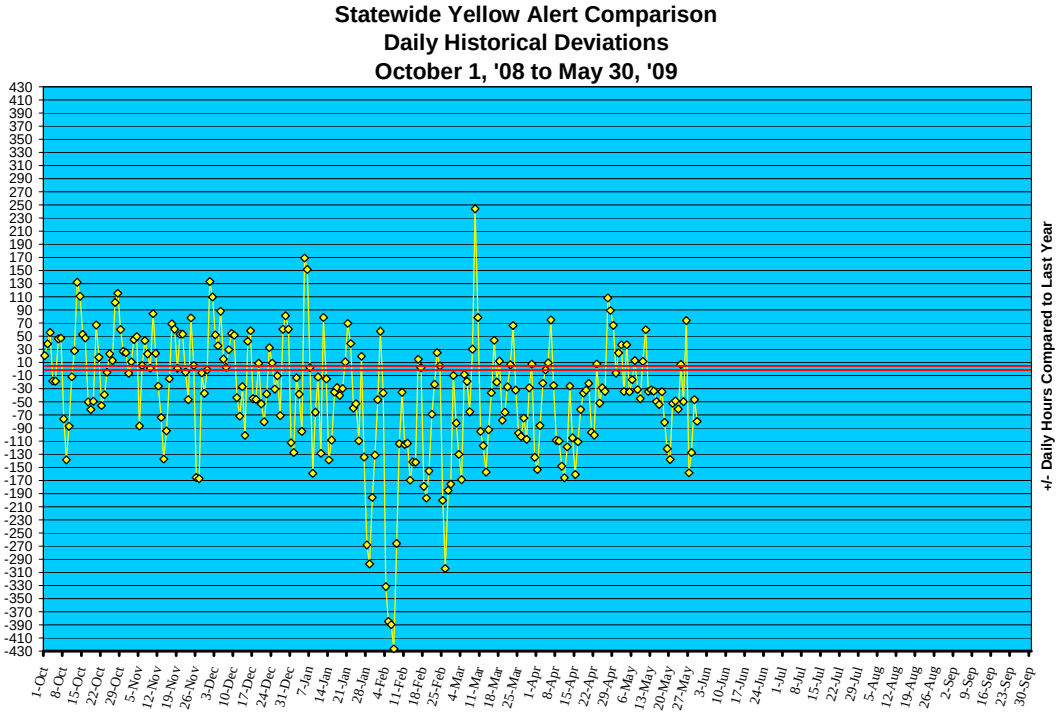
**** Red Alerts are not indicated on this graph.**

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in April 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (May 24 – 30, 2009):	10	0
Prior week (May 17 – 23, 2009):	07	0
Week#21, 2008 (May 18 – 24, 2008):	04	0

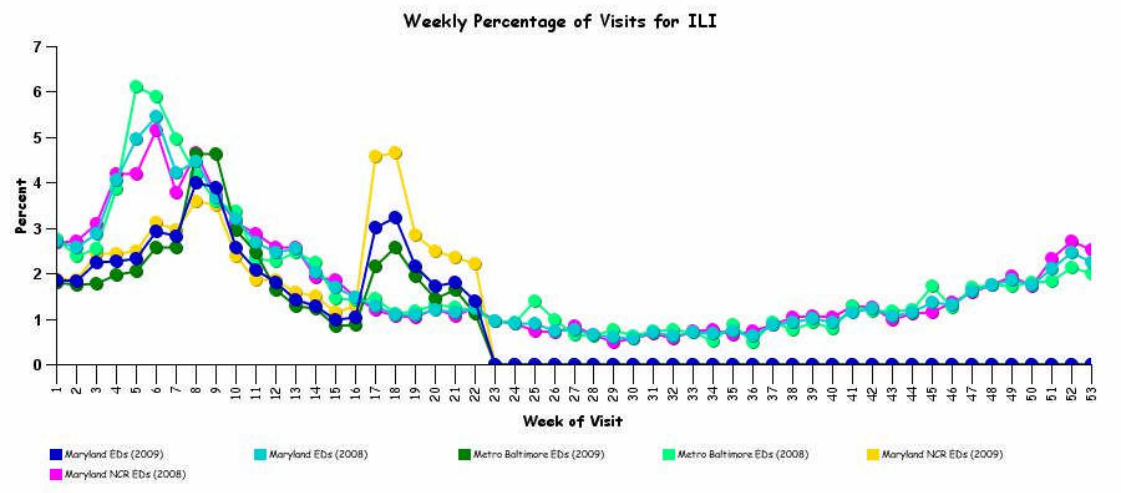
1 outbreak was reported to DHMH during MMWR Week 21 (May 24-30, 2009):

1 Rash illness outbreak
1 outbreak of RASH ILLNESS associated with a School

MARYLAND SEASONAL FLU STATUS: Influenza activity in Maryland for Week 21 is LOCAL.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



***Graph shows proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.**

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 5: Characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of May 28, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 431, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

AVIAN INFLUENZA, HUMAN (Egypt): 27 May 2009, Two 4 year old Egyptian children have contracted the highly pathogenic H5N1 bird flu virus, raising to 76 the number of cases reported in Egypt, the state news agency MENA reported on 26 May 2009. Egypt has been hit harder by bird flu than any other country outside Asia and has seen a surge of cases in recent weeks. The children, a boy and girl, were from different areas of Sharkiya province in the Nile Delta region. Both fell ill after coming into contact with birds with the virus. The avian H5N1 influenza virus rarely infects people, but experts say they fear it could mutate into a form that humans could easily pass to one another, sparking a pandemic. Most of those infected have previously been in contact with infected domestic birds in a country where 5 million households raise poultry as a significant source of food and income. Since 2003, the H5N1 virus has infected more than 400 [429 as of 22 May 2009] people in 15 countries and killed more than 250 [262 as of 22 May 2009]. It has killed or forced the culling of more than 300 million birds in 61 countries in Asia, the Middle East, Africa, and Europe.

AVIAN INFLUENZA, HUMAN (Egypt): 28 May 2009. The Ministry of Health of Egypt has reported 2 new confirmed human cases of avian influenza on 26 May 2009. The 2 cases are from 2 separate districts of Sharkia governorate. The first case is a 4 year old boy from Hehia City, Hehia district. His symptoms began with fever on 24 May 2009. The second case is a 4 year old girl from Abo Hammad district. Her symptoms began with fever on 23 May 2009. Both cases were admitted to Zagazig Fever Hospital, where they received oseltamivir and are in a stable condition. Investigations into the source of infection indicated that the above 2 cases had close contact with dead and sick poultry. Both cases were confirmed by the Egyptian Central Public Health Laboratories on 26 May 2009. Of the 76 cases confirmed to date in Egypt, 27 have been fatal.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA A (H1N1) (Japan): 29 May 2009. As of Fri 29 May 2009, a total of 367 confirmed cases of human infection with a novel influenza A H1N1 virus had been reported to Japanese Ministry of Health, Labour and Welfare. Preliminary outbreak investigation report from National Institute of Infectious Diseases, Tokyo, Japan has provided important data on the effectiveness of pre-seasonal vaccination on the new strain. They investigated 43 RT-PCR confirmed cases reported from Kobe City. Their median age was 17 years which ranged from 5 to 44 years. Among them, 42 reported the status of pre-seasonal vaccination for 2008/2009 season and the coverage was 52.4 percent. According to MHLW's estimation, the coverage of influenza vaccine among Japanese population was 53.7 percent for those aged less than 13 years, 23.1 percent for those aged 13 to 64 years, and 58.8 percent for those aged over 64 years during the 2008/2009 season. Taking account of the population age structure, 27.9 percent of Japanese people aged 5 to 44 years are estimated to have been vaccinated for seasonal influenza virus. This indicates that vaccine coverage among confirmed cases is no less than that of the population average. It is too early to reach a conclusion about a possible negative effect, yet it is already obvious that pre-seasonal vaccine for 2008/2009 season has no protective effect on disease from the novel influenza A H1N1 strain among the Japanese population. This finding should be valuable information for public health policy makers preparing for coming winter season.

INFLUENZA A (H1N1) (Worldwide): 28 May 2009. Up to 27 May 2009, 14,207 confirmed cases of the new virus influenza A H1N1 infection, including 99 deaths, have been notified in 17 countries of the Americas: Argentina [19], Brazil [10], Canada [1118(2)], Chile [119], Colombia [16], Costa Rica [33(1)], Cuba [4], Dominican Republic [2], Ecuador [28], El Salvador [11], Guatemala [5], Honduras [1], Mexico [4806(85)], Panama [79], Peru [27], United States [7927(11)], and Uruguay [2]. As of 27 May 2009, 48 countries around the world have reported a total of 15,064 cases of influenza A H1N1 infection, including 99 deaths; 94 percent of global cases are from the Americas. In the Americas Region, there were 1671 confirmed cases more than 26 May 2009. The Dominican Republic and Uruguay have reported their first 2 cases, each, increasing to 17 the countries affected in the Region of the Americas.

INFLUENZA A (H1N1) VACCINE DEVELOPMENT (Worldwide): 25 May 2009, Swine flu is spreading more widely than official figures indicate, with outbreaks in Europe and Asia showing it's gained a foothold in at least 3 regions. One in 20 cases is being officially reported in the US, meaning more than 100,000 people have probably been infected nationwide with the new H1N1 flu strain, according to the CDC. In the UK, the virus may be 300 times more widespread

than health authorities have said, the Independent newspaper reported 24 May 2009. Japan, which has reported the most cases in Asia, began reopening schools at the weekend [23-24 May 2009] after health officials said serious medical complications had not emerged in those infected. The virus is now spreading in the community in Australia, Jim Bishop, the nation's chief medical officer, said 24 May 2009. "I think we will see the number rise," Bishop told the Australian Broadcasting Corporation radio today after confirming the nation's 17th case and saying test results are pending on 41 others. "This is going to be a marathon rather than a sprint." So far, 46 countries have confirmed 12,515 cases, including 91 deaths, according to the World Health Organization's latest tally. Almost 4 of every 5 cases were in Mexico and the US, where the pig-derived strain was discovered April 2009. Most of those infected experience an illness similar to that of seasonal flu. The main difference is that the new H1N1 strain is persisting outside the Northern Hemisphere winter.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS:

No new disease outbreaks related to CDC Critical Biological Agents were reported for MWWR week 21.

INTERNATIONAL DISEASE REPORTS:

LUJO VIRUS (Zambia, South Africa - 2008): 29 May 2009, Researchers using full genome analysis have confirmed suspicions that a new member of the Old World arenavirus family was responsible for a mysterious hemorrhagic fever in patients from Zambia and South Africa last fall that killed four of the five patients who had the illness, according to a study published today in *Public Library of Science Pathogens*. The investigators named the new pathogen Lujo virus to reflect its origin; Lusaka, Zambia, and Johannesburg, South Africa.) The new virus is the first hemorrhagic fever–associated Old World arenavirus from Africa discovered in 30 years. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (Thailand): 27 May 2009, The Public Health Ministry has issued an alert about the return of chikungunya disease, which has spread to 23 provinces and affected more than 20,000 people since January. The southern provinces are hardest hit with almost 8000 cases reported in Songkhla province alone. The announcement, released 23 May 2009, said health authorities will intensify their war on garden-striped mosquitoes, which spread the virus, after 20,541 cases were recorded in 23 provinces from the start of this year to 20 May 2009. The number of people taken ill, which has increased by more than 5000 people in less than a month, has persuaded provincial public health officials to step up their mosquito eradication campaign, particularly in the south, where dark and humid rubber plantations make ideal mosquito breeding grounds. The southern provinces of Nakhon Si Thammarat, Narathiwat, Pattani, Songkhla, Trang, and Yala have reported unusually high numbers of people infected with chikungunya disease since January. Pattira Thangrattanasuwan, director of the Crown Prince Hospital in Pattani's Sai Buri district, said the vector-borne virus had now become the most serious health threat to people in the deep South. More than 800 people had come down with the disease in the district over the past 6 months, she said. The re-emergence of the disease in rural areas after a long period of absence in 1995 prompted health authorities to question whether chikungunya disease had developed into a more dangerous strain. Vichai Satimai, director of the vector borne disease bureau, said the current chikungunya outbreak was related to the African strain of virus, which could spread rapidly. A specific study on changes in virus virulence had not yet been made. However, an expert in vector borne diseases believed climate change might affect the life cycle of mosquitoes, enabling them to produce a minimum infective dose of the dengue or chikungunya viruses faster than before. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner.

Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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